

WHAT IS CLAIMED IS:

1. A honeycomb structure comprising: partition walls arranged in an X-direction so as to form a plurality of cells extending to an other-end portion from a one-end portion through an axial direction; and partition walls intersecting with the partition walls, wherein intersecting portions of the partition walls include a lacking intersecting portion in the one-end portion.

2. The honeycomb structure according to claim 1, further comprising: an intersecting portion in which an axial-direction depth of lack of the partition wall intersecting portion is 10% or more of a cell pitch.

3. The honeycomb structure according to claim 1, wherein the intersecting portions of the partition walls include a lacking intersecting portion in the other-end portion.

4. The honeycomb structure according to claim 1, wherein the intersecting portion of the partition wall includes a portion lacking to the other-end portion from the one-end portion.

5. The honeycomb structure according to claim 1, further comprising: plugging portions for plugging open end portions of predetermined cells among a plurality of cells

in either end portion.

6. The honeycomb structure according to claim 5,
wherein some of the plugging portions include plugging
5 portions lacking together with the surrounding intersecting
portions.

7. The honeycomb structure according to claim 5,
further comprising: intersecting portions which are lacking
10 around the plugging portion and in which the axial-
direction depth of the lack is smaller than that of the
plugging portion.

8. The honeycomb structure according to claim 5,
15 further comprising: intersecting portions which are lacking
around the plugging portion and in which the axial-
direction depth of the lack is larger than that of the
plugging portion.

20 9. The honeycomb structure according to claim 7,
wherein the plugging portion includes a portion whose width
is reduced toward an endmost portion from a cell side.

10. The honeycomb structure according to claim 5,
25 wherein a catalyst component is carried on the surface of
the plugging portion.

11. The honeycomb structure according to claim 1,
wherein the partition wall comprises pores and is porous,
and the surface of the partition wall and/or the pore
surface inside the partition wall carries a catalyst
5 component.

12. A discharge fluid purification system
comprising: a purification section for purifying a
discharge fluid; and an introductory section for
10 introducing the discharge fluid into the purification
section,
wherein the purification section comprises the honeycomb
structure comprising partition walls arranged in an X-
direction so as to form a plurality of cells extending to
15 an other-end portion from a one-end portion through an
axial direction, and partition walls intersecting with the
partition walls, wherein intersecting portions of the
partition walls include a lacking intersecting portion in
the one-end portion, and a one-end portion of the honeycomb
20 structure is disposed on an upstream side.

13. A method of manufacturing a honeycomb
structure, comprising: a step of processing/removing
intersecting portions of partition walls in a one-end
25 portion of a honeycomb body comprising the partition walls
arranged so as to form a plurality of cells extending to an
other-end portion from the one-end portion through an axial

direction and partition walls intersecting with the partition walls.

14. The method of manufacturing the honeycomb structure according to claim 13, wherein the processing/removing step comprises: a step of processing the intersecting portions of the partition walls so as to make holes in an end surface.

15. The method of manufacturing the honeycomb structure according to claim 13, wherein the processing/removing step comprises: a step of processing the end surface along a line connecting the intersecting portion to another intersecting portion of the partition walls.

16. The method of manufacturing the honeycomb structure according to claim 13, further comprising: a plugging step of plugging open end portions of the cells.

17. The method of manufacturing the honeycomb structure according to claim 16, wherein the processing/removing step is performed after the plugging step.

18. The method of manufacturing the honeycomb structure according to claim 16, wherein the plugging step

is performed after the processing/removing step.

19. The method of manufacturing the honeycomb structure according to claim 13, wherein the honeycomb body
5 is a fired body.

20. The method of manufacturing the honeycomb structure according to claim 13, wherein the honeycomb body is a non-fired formed body, and a firing step is included
10 after the processing/removing step.

21. A method of manufacturing a honeycomb structure, comprising: a forming step of extruding a forming raw material to form a formed body of the honeycomb
15 structure comprising partition walls arranged in an X-direction so as to form a plurality of cells extending to an other-end portion from a one-end portion through a axial direction and partition walls intersecting with the partition walls, wherein the forming step comprises: a step
20 of forming the formed body in such a manner that at least some of intersecting portions of the partition walls are lacking to the other-end portion from the one-end portion.

22. The method of manufacturing the honeycomb structure according to claim 21, wherein the forming step
25 comprises: a step of extruding the forming raw material by use of a die including intersecting slits forming the

partition walls arranged in the X-direction and the intersecting partition walls and also including intersecting portions of the slits at least some of which are blocked.

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23. A die for forming comprising: a die base including at least two surfaces and comprising a raw material supply path which is opened in one of the surfaces and slits which communicate with the raw material supply path and which are opened in the other surface,

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wherein the slits comprise: slits arranged in an X-direction; slits arranged in an intersecting direction; and intersecting portions in which the slits of the two directions intersect with one another in the other surface, and at least some of the intersecting portions are blocked.

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